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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/005,052  
Filing Date: December 04, 2001  
Appellant(s): MONSALVE-GONZALEZ ET AL.

\_\_\_\_\_  
Everett G. Diederiks, Jr.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/24/09, 6/19/09 appealing from the Office action mailed 11/24/08.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct. However, the 102 (e) rejection is hereby withdrawn.

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The 102 (e) rejection of claims 1-3, 5-21,23-26,33-39,41 and 48 as being anticipated by Gonzalez et al ( 6899907) is hereby withdrawn upon further consideration of the affidavit filed 2/5/07.

Since claims 10-15 are only rejected under 102 (e) over Gonzalez et al, these claims are not under appeal.

**.(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

STANLEY	7-1989
PHILLIPS et al.	2-1983

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 5-9, 16-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley (4844924) in view of Phillips et al

Stanley discloses a method of preparing a bran product. The method comprises the steps of reacting the bran with lower aliphatic carboxylic acid, acid halide, ester or anhydride and bleaching the reacted bran with one or more bleaching agents. The agents used are peroxides, chlorites, peracids and ozone. Following bleaching, the bleached bran is isolated from the bleaching medium by filtration, centrifugation etc, washed and dried to form a free-flowing particulate. ( see columns 1,3-4 and example 5). The pH is adjusted to an acidic level after the esterifying step and before the bleaching step. Example 5 discloses adjusting the pH to 5 before bleaching. This meets the limitation of acidifying the bran to a pH of about 4-6 prior to treating with ozone.

The teaching of Stanley is described above. Stanley does not disclose the bran is wheat bran or red wheat bran, the size of the bran is about 100 microns, the acid as in claims 16-17, the moisture content of the bran, the amount of ozone, admixing the bran with flour, forming a dry mix, forming cereal pieces, adding the bran to a grain product and forming the grain product into finished baked good.

Phillips et al disclose a process of bleaching lignocellulosic pulp using ozone. They teach the amount of ozone used in the bleaching is .2-1% ozone ( see col. 5 lines 34-38)

Stanley teaches bleaching bran with ozone; during bleaching, the bran reacts with the ozone. Thus, the reference meets the step of reacting bran with ozone.

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Stanley does not disclose the amount. In absence of showing of criticality or unexpected result, it would have been obvious to one skilled in the art to determine the amount of ozone to be used following the teaching of Phillips et al which shows amount in the range which cause bleaching to occur. Applicant has not shown any unexpected result with the claimed amount; it is only a conventional amount used in known reaction as shown by Phillips et al. The properties of reducing ferulic acid and increasing vanillin are an obvious result of the reaction of bran with ozone. Thus, such properties will also be found in the Stanley product. While Stanley discloses the preferred bran is corn bran, other material including vegetable, cereal and fruit sources can be used as the starting material. Therefore, it would have been obvious to one skilled in the art to use other type of bran when desiring to bleach such bran product. Stanley discloses bran of varying particle sizes; it would have been an obvious matter of choice to pick any size. The bran product disclosed by Stanley is a dietary fiber material having improved color stability. It would have been obvious to one skilled in the art to add the bran product to any food product including dry mix, cereal, grain product, baked goods etc...when one desires to increase the fiber content of that product. Stanley discloses adding the bran to dough for bread, crackers, cookies and biscuits. If the bran can be added to the dough, it can be added to the flour which is used to make the dough. The use of whole wheat flour or regular wheat flour would have been an obvious matter of choice. It would also have been obvious to add the bran to grain product and cereal product because these food products are typical made to have a high fiber content. The addition of the bran will serve such purpose. The making of cereal pieces is well known

in the art; thus, the steps of making the cereal pieces would have been readily apparent to one skilled in the art. It would also have been obvious to use grain product to prepare baked good because they are commonly prepared from grain product. The properties claimed are obviously found in the Stanley product because the bran is treated with ozone just as claimed. Applicant has not shown any unexpected result or criticality with the amount claimed. When the bran is added to whole wheat flour, it is obvious the pH will be the same as claimed because the same flour is used.

#### **(10) Response to Argument**

On page 10 of the appeal brief, appellant argues the oxidation of bran with peracetic acid or hydrogen peroxide for 120 minutes is simply not a mild oxygenation treatment; thus, the Stanley process teaches away from the present invention which is a mild oxygenation treatment of bran. The time of treatment and the bleaching agent pointed out by appellant is only one embodiment disclosed in Stanley; it is not the only embodiment taught by the reference. Stanley discloses the bleaching agents used can be oxidative bleaching agents such as peroxides, peracids and ozone. Stanley discloses " preferred bleaching techniques include oxidative bleaching followed by reductive bleaching" ( see col. 3 line 60 through col. 4 line 3). The bleaching agents disclosed in Stanley include ozone; the use of peracetic acid or hydrogen peroxide followed by reductive bleaching is only a preferred embodiment. The time of the reaction is not claimed; thus, it is not an issue to be considered. Furthermore, as taught by the prior art, different bleaching agents are used at different concentration and reacting at different time range. For instance, Phillips et al disclose on column 5 lines

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29-38, " in ozone bleaching, the reaction is usually carried out at 15-60 degree C, pH 2-7 for about 5-30 minutes"; on the same column, Phillips et al teach different time frame for other bleaching agents." Since Stanley teaches ozone as a bleaching agent, it would have been obvious to one skilled in the art to determine the time that is appropriate with ozone and not with peracetic acid or hydrogen peroxide as pointed out by appellant. Thus, contrary to appellant's conclusion, Stanley does not teach away from mild oxygenation because Stanley teaches reacting the fiber with ozone.

On page 11 of the appeal brief, appellant argues there is simply no apparent reason for one to replace the peracetic acid or hydrogen peroxide of Stanley with the concentration of ozone from Phillips et al while forgoing the required hydrogen peroxide bleaching step in Phillips et al. This argument simple ignores the totality of the Stanley teaching. It is not a question of replacing the peracetic acid or hydrogen peroxide with ozone; it is a question of selecting ozone out of the group of bleaching agents disclosed in Stanley because Stanley discloses the agent can be ozone. As to forgoing the hydrogen peroxide bleaching step of Phillips et al, the Phillips et al reference is only relied upon to show that the concentration of ozone claimed is a conventional amount known to be used in bleaching fiber product. Appellant argues Phillips et al is in a completely different field than both Stanley and the present invention and there is no motivation to combine from entirely different fields to solve a problem that neither one of them recognizes or addressed which is reduction of ferulic acid and the increase in vanillin in bran. Phillips and Stanley are not from entirely different fields because both of the processes disclosed in Phillips and Stanley are directed at bleaching of fiber



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substrate. Thus, the teaching of the concentration of ozone to use in a bleaching step in Phillips is equally applicable to the bleaching step in Stanley. Even without the Phillips reference, the amount of ozone used is an optimizing parameter that is within the determination of one skilled in the art. One skilled in the art would use an amount that is effective to carry out the desired bleaching. The Phillips reference is used to further show that the amount claimed is an amount that is conventional used in bleaching and there is nothing unconventional in the amount recited in the claim. While Phillips is directed to bleaching paper, the function of the ozone is the same as in the Stanley process. Thus, one skilled in the art would look to the guidance of Phillips in determining the amount. As to the increasing of the native vanillin and reduction of ferulic, this is an inherent result of the bleaching process and such result is also expected in the prior art process. The claimed method is a method for treating bran comprising the step of reacting bran with .1-1 parts ozone/100 parts bran. Stanley in combination with Phillips teaches the same reaction. A discovery of an inherent result is not the basis of patentability.

On page 12 of the appeal brief, appellant argues both Stanley and Phillips et al teach the use of multiple bleaches. This argument is not persuasive. Stanley discloses that multiple bleaching is a preferred embodiment; the process is not limited only to multiple bleaching. Also, the claims do not exclude additional processing steps; thus, appellant's argument does not commensurate with the scope of the claims. The Phillips et al reference is only relied upon for the teaching of the concentration of ozone to use in a bleaching step. Appellant argues the combination does not employ mild ozone

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treatment, makes no mention of .1-1parts/100 parts bran, makes no mention of reducing ferulic acid and has no disclosure of increasing vanillin. This argument is not persuasive. Stanley teaches the bleaching agent can be ozone; Phillips teaches the concentration of ozone used in bleaching is in the range of .2-1%. Thus, the combination does teach reacting the substrate with ozone in the concentration of .2-1%; this concentration is within the range claimed because .1-1parts/100parts means .1-1%. As stated above, the reduction of ferulic acid and the increase of vanillin is an inherent result of the reaction between the substrate and ozone and such result is expected in the prior art process. Appellant argues this assertion is not supported by the evidence. It is supported by the fact that the combination of Stanley with Phillips teaches the same reaction as claimed; the reaction of a fiber substrate with ozone in the concentration as claimed. Appellant has not shown by factual evidence that the reaction will not give the result as claimed.

On pages 13-15, appellant makes the same argument with respect to the dependent claims concerning the levels of ferulic acid and vanillin; the argument is not persuasive for the same reason set forth above. With respect to claims 19,23, Phillips et al teach the concentration of ozone used is in the range of .2-1%; the range in claims 19, 23 falls within this range. On page 14, appellant argues the assertion that the property concerning the ferulic acid and vanillin is an unsubstantiated conclusion. The conclusion is based on the prior art teaching of the same reaction. If the same reaction is taught, then it is inherent the reaction gives the same end result. While appellant

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contends otherwise, appellant does not have any factual evidence to support such contention.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Lien T Tran/

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/Christine Tierney/  
Supervisory Patent Examiner, Art Unit 1700

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